Price 15 Cents

VIRGINIA WILDLIFE

NOVEMBER
1950

Condensed Virginia Hunting Laws, pages 14-15

Volume XI
Number 11

Hounds, horses, and hunters blend to form an Autumn symphony in this typical Virginia November scene.

V.S.C.C. Photo

VIRGINIA WILDLIFE

Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, Richmond 13, Virginia

A Monthly Magazine for Higher Standards of Outdoor Recreation Through Wildlife Conservation

COMMONWEALTH OF VIRGINIA

JOHN S. BATTLE, Governor
Commission of Game and Inland Fisheries

COMMISSIONERS

B. W. STRAS, Jr., Chairman, Tazewell, Va.

CHARLES ANDREWS, Suffolk, Va.
FRANK P. BURTON, Stuart, Va.
Wm. C. GLOTH, Jr., Arlington, Va.
T. G. HERRING, RFD, Dayton, Va.
Dr. E. C. NETTLES, Wakefield, Va.
Dr. Wm. T. PUGH, Lynchburg, Va.
Dr. W. B. RAINS, Warsaw, Va.
T. D. WATKINS, Midlothian Va.

I. T. QUINN, Executive Director
P. O. Box 1642, Richmond, Va.

Song and Insectivorous Birds | Upland Game Birds | Migratory Game Birds | Game Mammals | Inland Fish | Dog Law Enforcement

Law Enforcement Division — Division Chief M. W. Kesterson
Game Division — Division Chief C. F. Phelps
Fish Division — Division Chief G. W. Buller
Fiscal Division — Division Chief Miss L. B. Loyne
Education Division — Division Chief J. J. Shomon

VOLUME XI NOVEMBER, 1950 NUMBER 11

In This Issue

	Page
Mac Hart Crosses the South Anna	4
Marked Wildlife	5
Marksmanship and Conservation	8
The Pamunkey—Famous Rivers Series #2	10
Conservationgram	13
Condensed Virginia Hunting Laws	14-15
A Tenth of An Acre	16
Turkey Call	19
How Many Birds Do We Have?	20
Field Force Notes	24
School Page	26

Cover Photo

A perfect Autumn scene to thousands of Virginia duck hunters is this photo of mallards bobbing gracefully on a choppy Tidewater river.

SCS Photo

VIRGINIA WILDLIFE gratefully receives for consideration all news items, articles, photographs, sketches and other materials which deal with the use, management and study of Virginia's interrelated, renewable natural resources:

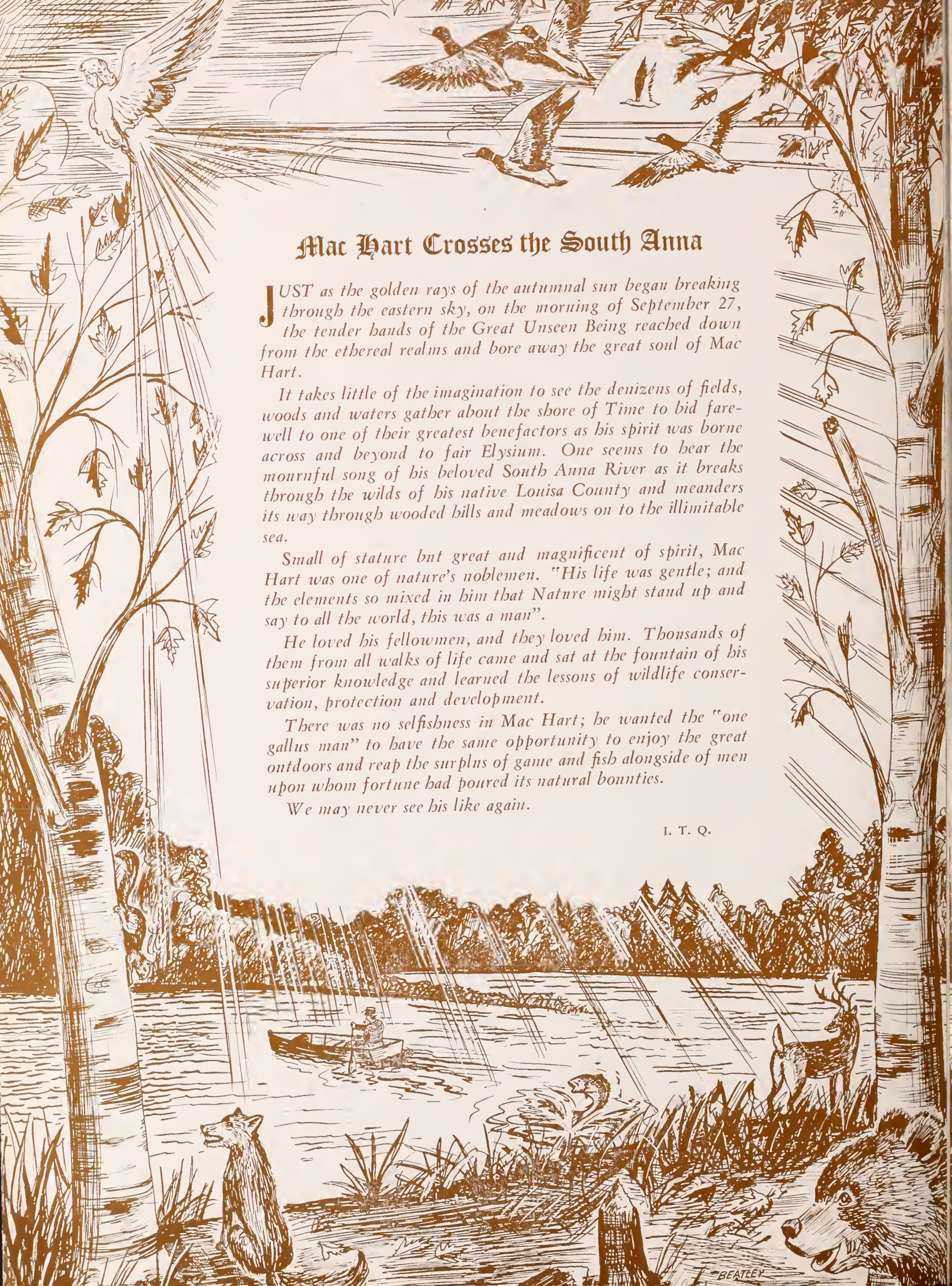
WILDLIFE
SOILS — *CONSERVE* — WATER
FORESTS

Since wildlife is a beneficiary of the work done by State and Federal land-use agencies in Virginia, editorial policy provides for recognition of their accomplishments and solicitation of their contributions. Credit is given on material published. Permission to reprint is granted provided proper credit is given.

SUBSCRIPTIONS: One Year, $1.00; two years, $1.50; three years, $2.00. Remittances by check or money order to be made payable to the Treasurer of Virginia. Local game wardens will accept subscriptions or they may be forwarded direct to Commission of Game and Inland Fisheries, 7 North Second Street, P. O. Box 1642, Richmond 13, Virginia.

Entered as second class mail matter November 10, 1947, at the Post Office at Richmond, Virginia, under the Act of August 24, 1912.

J. J. SHOMON—*Editor* R. T. SPEERS—*Associate Editor*



Mac Hart Crosses the South Anna

JUST as the golden rays of the autumnal sun began breaking through the eastern sky, on the morning of September 27, the tender hands of the Great Unseen Being reached down from the ethereal realms and bore away the great soul of Mac Hart.

It takes little of the imagination to see the denizens of fields, woods and waters gather about the shore of Time to bid farewell to one of their greatest benefactors as his spirit was borne across and beyond to fair Elysium. One seems to hear the mournful song of his beloved South Anna River as it breaks through the wilds of his native Louisa County and meanders its way through wooded hills and meadows on to the illimitable sea.

Small of stature but great and magnificent of spirit, Mac Hart was one of nature's noblemen. "His life was gentle; and the elements so mixed in him that Nature might stand up and say to all the world, this was a man".

He loved his fellowmen, and they loved him. Thousands of them from all walks of life came and sat at the fountain of his superior knowledge and learned the lessons of wildlife conservation, protection and development.

There was no selfishness in Mac Hart; he wanted the "one gallus man" to have the same opportunity to enjoy the great outdoors and reap the surplus of game and fish alongside of men upon whom fortune had poured its natural bounties.

We may never see his like again.

I. T. Q.

MARKED WILDLIFE

By HENRY S. MOSBY[1]

Virginia Cooperative Wildlife Research Unit, Blacksburg, Virginia

Photo by author

Marking wildlife is a valuable tool in game management.

ALL OF US ARE FAMILIAR with the bird banding program in which many different types of birds, but especially the migratory ones, are marked in considerable numbers each year. When a migratory banded bird is recovered, either by trapping, by accidental death or by shooting, information of considerable merit can be obtained as to the route of travel, the distances covered, breeding areas which act as the reservoir for our winter birds and waterfowl, and the speed with which the bird traveled in its migration. Bird banding has been practiced for a considerable number of years and this program is now on a large scale, as is indicated by the fact that more than 100,000 waterfowl and 5,000 mourning doves alone were marked in North America in 1949. The value of marking birds with bands has been proven; it is a very worthwhile tool and is extensively used to gather information needed in ornithological studies and in the management of our migratory game birds such as waterfowl and dove.

Perhaps less well known are some of the various methods, other than leg banding, used to mark wild animals for purposes of positive identification. Marking animals is by no means confined to migratory birds; this technic is useful in working with our non-migratory game birds such as the quail and turkey, with our mammals such as deer, rabbit, squirrel, with fish, and with many other kinds of wildlife. It is axiomatic that animals of the same species look alike and it would require a very sharp eye indeed to distinguish one gray squirrel from another unless it were disfigured in some manner. However, if a squirrel is marked with a numbered piece of metal in its ear, its identity is definite and unmistakable. Thus, marking so that the individual animal can be positively recorded is as useful in wildlife management as is the taking of finger prints for the positive identification of humans.

Various methods of marking wild animals have been employed. Some of the more commonly used technics of marking animals include using leg bands, metal ear tags, celluloid ear washers of various colors, toe and ear clipping, web punching, tattooing, branding with a hot iron or with chemicals, dye marking or coloring, feather imping, and attaching variously colored feathers on plastic markers. Each of these marking methods may have particular merit when used to collect specfic information on a certain animal group, but the prime objective of all methods is to mark the animal in such a way that it may be most readily and accurately identified under the existing limitations. For example, if you desired to determine what percentage of the squirrel population is taken by sportsmen, ear tagging probably would be used to mark the squirrels, prior to the opening of the hunting season, as these tags could be checked from the bagged squirrels. However, if it was desirable to mark captivity-reared wild turkeys in such a manner as to permit identification without rehandling, a dye or other colored marker would probably be most satisfactory. Colored feathers or markers would make it possible to check the movements of these turkeys after liberation even at considerable distances. Quite often two or more methods of marking, such as tagging and dye marking, may be used on the same animal, thus giving a double check on positive identification.

By and large, metal tags or bands are the most

[1]Release No. 51-2 of the Virginia Cooperative Wildlife Research Unit: Virginia Polytechnic Institute, Virginia Commission of Game and Inland Fisheries, Wildlife Management Institute and the U. S. Fish and Wildlife Service (Department of the Interior), cooperating.

Photos by author

Top: Clips are often fastened to game species for identification.

Bottom: The white feather inserted among these turkey tail feathers makes spotting easy.

satisfactory devices used in marking animals as they can be numbered, are relatively non-destructible and are easily seen when examining dead or trapped animals. In connection with the wildlife research work done by the Virginia Cooperative Wildlife Research Unit, the following animals have been marked: various forms of songbirds, waterfowl, quail, coon, rabbits, skunk, squirrels, muskrat, groundhog, and fish. We have no indication that marking these animals, usually with metal leg, ear, or jaw tags, has caused the animal any injury and very little, if any, discomfort. It is certain that we could not have obtained definite information regarding these animals without some method of positively identifying them by markers.

This animal marking program at Blacksburg has brought out some interesting bits of information which illustrate the value of marking wildlife. For example, banding has shown that many of the mallards and black duck which winter on the V. P. I. College Ponds are reared in Ontario, Canada, and at least a portion of them pass through New York en route to Blacksburg. Ear tagging rabbits has shown that the life expectancy of this mammal must be very short, as it is rare that a marked animal more than two years of age is retaken. Marked squirrels have returned "home" from a distance of several miles and have been recaptured in live traps at the place where they were originally marked. Trapping and ear tagging, followed by retrapping after a period of time, has been one of our best methods of arriving at an estimate of the rabbit and squirrel population on a given area of land. Finally, with native quail, we have never retaken more than 10 percent of the marked population one year after banding. These random examples illustrate the types of information which are obtained as a result of marking wild animals; most of these data could not have been gathered without some definite method of marking each individual animal.

Several other problems now face us and if we can evolve a suitable trapping and marking system, perhaps these perplexing problems can be answered. For instance, field observations indicate that muskrats in western Virginia may move from areas in which they breed to other areas for the winter, but we have been unable to substantiate this. Thus, we are now engaged in tagging as many muskrats as possible and if we are successful in recovering some of these tagged individuals during the coming trapping season, we will be able to throw further light on this question. Then again, there is every indication that the black bear may move considerable distances, perhaps as much as 50 miles, during the period of a year. A trapping technic has been evolved, but we have not tried marking bear as yet. Branding has been suggested, but the difficulties of using this method of marking a 200-pound wild bear are obvious!

Rosebery, in his outstanding work with the fish

Fish tagging is an accepted method of marking for study purposes.

Photo by author

Above: Wildlife men remove ducks from a riverside trap for marking purposes.

Right: Tagged and released, this bird may help increase flyway knowledge and aid in future management.

Photos by author

of Claytor Lake, used jaw tags to mark fish and by this technic was able to form an intelligent opinion as to the fish composition of the lake, the percentage taken each year by sportsmen, the rate of growth during various periods, and other essential information. Thus, marking or banding is not confined solely to birds and mammals; it is useful in yielding information on all forms of wild animals.

Only those who have spent hours afield capturing, marking, and carefully recording information on the marked wild animals can appreciate the value of bands and other markers turned in by cooperative sportsmen and others. Each wild animal is marked and released only after a considerable amount of work and toil on the part of some wildlife worker; therefore, every individual is urged to examine any dead animal he finds to determine if it is marked. If it wears a band, ear tag, colored marker or any other artificial ornament, preserve the marker and report it. Usually, the marker will give the address of the agency which placed the marker on the animal. For example, the U. S. Fish and Wildlife Service acts as the recording agency for all bands placed on most of the migratory birds, including waterfowl. Such bands should be flattened and returned to them, together with information as to where and when the marked animal was found, at the following address: Bird Banding Section, Fish and Wildlife Service, Laurel, Maryland. This agency will, in turn, advise the person sending in the band where the bird was banded and when. Most other bands or markers will carry the name of the agency doing the banding and will give the address on the marker. Any bands or other identifying markers recovered from wild animals here in Virginia may be sent to the Virginia Cooperative Wildlife Research Unit, Blacksburg, Virginia, and this agency will make every effort to get the marker to the proper person or agency and give the sender all available information on the animal from which the band or marker was taken.

Wild animals are marked for a purpose—to collect needed information. It is not illegal to kill or take marked game during the lawful hunting and fishing seasons as many persons have erroneously assumed. So—help by returning all bands and markers; oftentimes the information from a single marker is of great importance.

"Angling is somewhat like poetry;

men are to be born so." Izaak Walton

Photo by Kesteloo

Junior rifle instruction can go a long way towards raising a future generation of safer hunters.

MARKSMANSHIP and CONSERVATION

By JOHN WILFRED COURTNEY, JR.

LLOYDS OF LONDON would probably be only too happy to issue you an insurance policy on your chances of being involved in a hunting accident this fall. Mathematically they would be right. *Collectively* the chances of hunting accidents are small, 10 to 20 cases in relation to the number of Virginia hunters in the field. But *individually,* if you are one of the cases, the mathematical chances won't mean a thing. Friends who visit you at the hospital, or the mourners at your funeral if you are a bit more unfortunate, may discuss the sad accident you had, or your "bad luck." Actually when you come right down to it, there's no such thing as a hunting accident; only hunting carelessness, and luck has very little to do with it outside of putting you in the wrong place at the wrong time when someone displays his carelessness.

Other than the sort of thing where a hunter falls over a cliff and breaks his neck, or is hit by a bolt of lightning during a storm, the usual hunting "accident" involves firearms. There is a pretty good reason for it, too.

The average nimrod spends 10 or 11 months of the year thinking about hunting, and the other one or two actually doing it. He's rusty in the handling of his guns and is apt to make mistakes that can be, *and often are,* fatal. Not only that, but no matter how much of a Daniel Boone he may fancy himself, the simple truth is that with so little practice he is not a good shot. The result is more wounded—and wasted—game.

What to do about it? The whole problem, hunting accidents, carelessness, and poor shooting? Well, there is an answer and a fairly simple one. Organize a rifle club and shoot targets the year round. Learn and teach the fundamentals of correct and safe shooting. Make target shooting your main meal, and then for a bit of occasional dessert, take a hunting trip. If you do this, I believe you will shoot at less game but your shots will be more effective and there will be less wounded game to drag itself off to a slow and agonizing death. Anyway, why shoot game for the vultures if with year-round practice you can develop the skill to kill game quickly and mercifully and enjoy it at your own table? That should take care of the more shooting and game conservation.

Now here's where the human life factor comes in. Have you heard that during the 1949-1950 season, hunting accidents with firearms resulted in 10 human beings killed and 9 more wounded? Both shotguns and rifles were involved. The 10 deaths were from shotguns, six non-fatal wounds were

Photo by Kesteloo

Thorough familiarization with the gun is important. In this case, familiarity breeds respect!

Photo by Kesteloo

Good instruction makes good marksmen. Better shooters cripple less game.

from shotguns and 3 non-fatal wounds from rifles. Deaths were the same number as for the preceding season, but non-fatal wounds were reduced from 26 to 9. Don't you believe that hunting accidents can be practically wiped out?

I believe this, and I can tell you the reason I do have this belief. Since 1926, the National Rifle Association has been promoting a junior rifle instruction course for youngsters under 19 years of age, and during this period of 24 years, over one and one-quarter million youngsters have taken this course of instruction. Any youngster who has completed such a course would look with amazement at the reasons listed for 18 of the 19 accidents (cause of one was unknown) because the rules of safety which they study and learn prohibit careless handling of firearms, holding a gun in a dangerous position, failing to check for a backstop, having a loaded hunting or target arm in a car, crossing a fence with a firearm, or holding a rifle or gun in such a way that if he lost his balance he could not maintain direction of muzzle. Such rules control a rifle range to such a degree that target shooters subconsciously follow them.

It is also my belief that these accidents can be blamed in part on the citizens of this nation who were adult leaders at the time our present hunters were youngsters. I say this because this fact is with us in the present adult and youngster relationship. We all know of organizations which have gone to much expense to outfit a group of youngsters to participate in such fine sports as baseball, basketball, tennis, swimming, track, etc., and schools and communities furnishing the baseball diamond, the basketball gymnasium, the swimming pool, tennis court or the football field where the youngsters who like those sports may play in safety as far as the hazards of the games permit. This is fine as far as it goes, but how about the youngsters who like to shoot? Have you seen news articles condemning boys for shooting out lights and windows, or shooting songbirds? I wonder if the condemnation should not have been directed at the adults, as it has been done in many cases of juvenile delinquency.

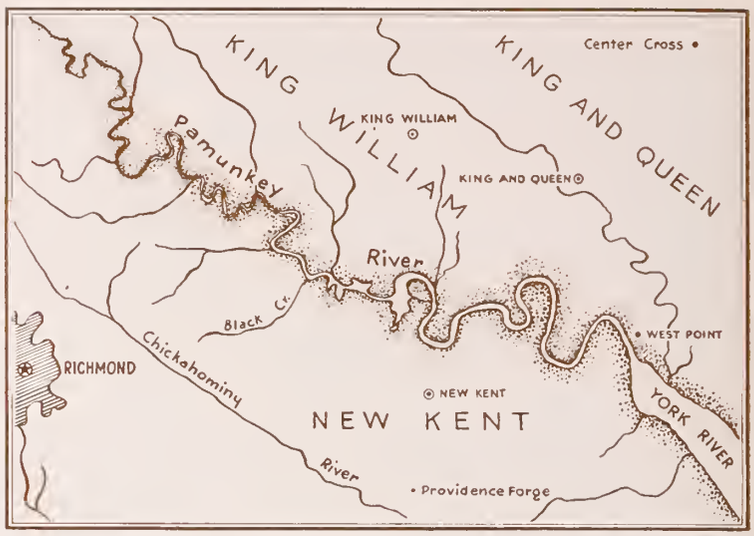
Do you remember the thrill that came over you the first time someone placed a rifle in your hand and let you shoot it? Do you remember the temptation it was to pick up and fondle a beautiful rifle that some other kid's dad had given him for Christmas? Have you ever seen the sparkle in the eyes of a group of youngsters when you took them for the first time to a rifle range, briefed them on the safety rules and then showed them how to hold the rifle to squeeze off the first shot? I have, and the personal satisfaction received has more than repaid me for the hundreds of hours I have put into junior rifle instruction. Not only pleasure for their present joy, but a feeling that the youngster so trained will be a safe bet with any firearm under any conditions, and that having found a

(*Continued on page* 12)

FAMOUS RIVERS OF VIRGINIA
(Second in a series of eighteen)

The PAMUNKEY

By HUGH O'NEILL



The Pamunkey: part and parcel of Tidewater history.

THE RIVERS OF VIRGINIA are dear to the hearts of the people of the Old Dominion.

The mighty James with its three centuries of prideful history, the rolling Shenandoah with its lovely valley, the Appomattox where the ghosts of bugles lend a somber overtone to Southern history, these are famous streams and hold a unique position with all Virginians.

But the small rivers of the state have a place of their own, too. Each has its own associations with history—its own hold on the heartstrings of its people.

The Pamunkey is such a river. It flows serenely to its confluence with the Mattaponi to form the York and has continued, down through the years, to be one of Virginia's most important streams from the standpoint of hunters and anglers. It was not always so peaceful. There are some sinister chapters in the history of the area.

The broad marshes of the Pamunkey offer an historic and picturesque background to Virginia sportsmen.

Photo by Kesteloo

The village of Chief Opechancanough, implacable foe of the early white man, stood on the site of what is now the town of West Point. It was there that this vengeful and crafty savage leader planned the horrible massacre of 1622 which well-nigh succeeded in wiping out the early Virginia Colony. It was from this point that the massacre of 1644 was launched, when the aged Indian was so feeble of body that he had to be borne into battle on a litter, his mind still clear and his hatred still unquenched. It was here that he made his last stand, and was captured.

Wildlife tied in closely with the white man's relations with the Indians from the beginning of the white settlement, when Captain John Smith often traded with the Pamunkies for their corn and venison. The consideration, in a curious old treaty of peace in 1640, was twenty beaver skins to be delivered each year at the going away of the geese. The token of fealty to His Majesty's government at Jamestown is still perpetuated in gifts of game each fall to the Governor of Virginia, presented by the tribal leaders in a pretty ceremonial at the Mansion in Richmond.

Two centuries later, the Pamunkey River was in the thick of the celebrated Peninsula Campaign. The White House, General George B. McClellan's base of supply during the Seven Days Battle around Richmond, was burned when the base was evacuated along with supplies which could not be moved June 28, 1862. The wife of General Robert E. Lee, who had been forced to leave her home, Arlington, was residing at White House when McClellan approached.

Mrs. Lee left a note on the door beseeching that the former home of Martha Washington be spared. It was in this old mansion on the Pamunkey that

Shad fishing in spring is still carried on in the river. Here, nets are hauled to check the catch.

Large flights and rafts of ducks and geese are a common sight along the lower reaches of this tidal river.

Photos by J. J. Shomon

Virginia hunters return to the same blinds year after year for some of the state's best waterfowl gunning.

Mrs. Washington lived during her brief married life with her first husband, Daniel Parke Custis, and it was from him that Mrs. Lee inherited the property which she owned at the time of the War Between the States.

The foundations of this historic old Pamunkey River place are within hearing of the waterfowling at two famous old gunning clubs, the Lester Manor and the Lily Point. One of the most remarkable concentrations of ducks and geese to be seen anywhere in Virginia can be found here when the birds come down each year in their migration.

The Pamunkey has always been abundantly supplied with fish, although it is frequently cloudy from the red mud country of Orange, Louisa, and Spotsylvania Counties along its upper tributaries. The tide comes high up in the Pamunkey, and in past years the fisheries for sturgeon, shad, and other salt-water species have been important to residents of the region.

Almost the entire lower valley of the Pamunkey, in Colonial times, was in the hands of large plantation owners. Every old plantation had its pond to supply power for the mills which ground their grain and sometimes sawed their lumber. The mills, for the most part, are unused, but the fine clear millponds remain to supply present-day Virginians with some of the finest pond fishing to be found anywhere in the state.

Perhaps the great concentration of waterfowl and marsh birds is the most conspicuous feature of this Virginia river, but its basin also furnishes habitat for a wide variety of upland game species. Deer and turkey hunting along the Pamunkey have been famous, the fields abound in quail and rabbits, and the dense woods harbor many squirrels, raccoons, foxes and opossums, and there is a good yield each year of furs from the muskrats of the marshes.

Some of the sora marshes along the Pamunkey are outstanding, and the sport of hunting sora has long been popular. These mysterious little rails continue to come into the river marshes in large numbers year after year. The mud of many of these marshes must be loaded with shot, fired down through the years at sora and waterfowl.

The Pamunkey vies with the James in the number of Canada geese which visit the area annually. There are times when these great game birds literally darken the sky when a number of flocks rise simultaneously and circle, while their incessant honking makes music for the hunters' ears. They customarily feed in the fields throughout the area and return to the safe areas of the river to rest.

The Pamunkey marshes are a bird watcher's paradise. Every species of wild duck found in

Virginia visits the Pamunkey from time to time. While the prevailing species are the dipping varieties, such as blacks, mallards and pintails, quite often a flight of bluebills, canvasbacks or redheads will come in. The teals, ruddies and other smaller ducks are also frequently seen.

If a man should seek a place where he could see a lot of waterfowl in season, there is hardly a spot in the entire state where he could be more confidently assured of attaining that result than on the Pamunkey River in the area of Lester Manor. His shooting would depend on weather and other conditions, but he would certainly see a lot of ducks and geese in the air.

The remnants of the once-numerous Pamunkey Indians still live on their tribal reservation of some 700 acres at Lester Manor. They continue to subsist largely upon the fish in the Pamunkey's waters and the game along its banks. A number of them offer their services each year as guides to white hunters and waterfowlers.

The reservation is self-governing and in many respects is unique in its communal forms. The fruits of the labors of the individual are supposed to contribute to the benefit of all. There is considerable traffic in woven-ware, pottery and other things fashioned by the tribespeople.

The Pamunkey is one of Virginia's rivers which has been, and always will be, singularly important because of the fish in its waters and the wildlife along its banks. These things rank high in value in the eyes of those who own property on this river, and in fact some of the most beautiful homes and the adjoining lands have been purchased primarily for the hunting and fishing afforded.

Deer hunting clubs and waterfowl concessions are increasing in numbers, and owners of properties along the Pamunkey are retaining hunting privileges on their lands for themselves and their friends. This means that hunting opportunities for the casual gunner are becoming more and more restricted. But there are still many localities where the stranger may be accommodated.

It must be confessed that fishing in the upper reaches of the Pamunkey is not as good as in some of the other rivers, because of the heavy siltation. But the Little River, one of its tributaries, is one of the prettiest, clearest streams in Eastern Virginia for the man who likes to wade for his angling. So is the South Anna, which joins the North Anna to form the Pamunkey.

Throughout the valleys of the North and South Anna, hunting for various species of upland game continues good, as it is also along the main body of the Pamunkey below where the tides cease to ebb and flow, but there are no such tremendous flights of waterfowl in the fall along the upper tributaries like those which come into the broad marshes lower down the river.

Since the closing of an extensive mining region for iron pyrites on the North Anna in Louisa County, there has been no disastrous pollution anywhere on the Pamunkey until it reaches its junction with the York at West Point. Here a great pulp mill pours its waste into the waters, but with this exception, there are no other industries of consequence on the river.

The Pamunkey has always been associated with Virginia history, from its early day of Indian beginnings down through to the present day.

But primarily, from the sportsman's standpoint, the Pamunkey's main attraction is that it has always had, and will continue to have, a peculiar fascination for the man who loves to hunt and fish and who appreciates the weird beauty of Virginia's tidal streams and marshes.

MARKSMANSHIP

(*Continued from page* 9)

wholesome sport with the rifle, he will not have to look for excitement by shooting at illegal targets in an unsafe fashion.

Now don't misunderstand my reference to rifle target shooting. I believe that a safety course in shotgun or pistol would have the same relative value in lives saved; however, I am familiar with the course as developed by the National Rifle Association, which has been working so beautifully for the past 24 years. Also, do not think that I am belittling the value of other sports. This I would never do, because I enjoyed them myself when I was a youngster. My reference to them is only in the light of comparing the facilities furnished for them by organizations and communities with lack of facilities furnished for shooting.

Yes, target shooting can be wholesome fun, and the sport can be enjoyed for many years after the average person is too old for more vigorous sports. Just a few years ago, among the top ten in the national small bore matches there was a sixteen-year old girl at one extreme and at the other extreme was a man in his late sixties. The most obvious holdup in rifle shooting and instruction in Virginia is the small number of ranges and instructors. Many fairly large communities possess neither for all practical purposes. However, if a survey were made, a suitable site for both outdoor and indoor range could probably be located, and among the ex-service men, I dare say many would be found willing and happy to resume rifle instruction with

(*Continued on page* 22)

VIRGINIA WILDLIFE

CONSERVATIONGRAM

Late Wildlife News . . . At A Glance

THE 4TH ANNUAL meeting of the Southeastern Association of Game and Fish Commissioners was held in Richmond on October 15th through 18th. The meeting was attended by over 200 conservationists from the eleven southern states of the Association and by officials of the various federal conservation services.

General sessions, technical game sessions, and technical fish sessions, were held on each of the three working days of the convention and many excellent papers were presented. One of the convention highlights was the discussion of the future of waterfowl by Albert W. Day, Director of the U. S. Fish & Wildlife Service.

The convention banquet was held on the evening of the seventeenth with Governor Battle making the welcoming address. The commission's new films, "Coveys and Singles" and "Brooks and Rainbows" were given their premier showing as part of the evening's entertainment and were highly praised by the assembled fish and game heads.

PLANS ARE NOW underway for the 1950 Big Game Trophy contests to pick the best deer and bear heads of the 1949-50 hunting season.

Two regional contests are planned, one east of the Blue Ridge, to be held on the evening of November 11 in Newport News under the sponsorship of the Virginia Peninsular Sportsman's Association, and the other west of the Blue Ridge, under the sponsorship of the Harrisonburg chapter of the Izaak Walton League, on November 3 and 4. Any sportsmen interested in entering a trophy are urged to contact George Johnson of the Peninsular Sportsman's Association, or Lester Hoover of the Harrisonburg chapter of the League. Following the regional contests, a state-wide contest will be held at the Game Commission offices in Richmond on November 18 to pick the top winners. In order to be eligible for the state-wide contest, a trophy must have placed in one of the regional contests.

TWO BILLS IN which conservationists were genuinely interested failed of passage in the past session of Congress. One was the Bill to provide a refuge for the small remnant of Florida Key Deer. This Bill passed the House and was reported in the Senate. It was brought up by Senator Edwin Johnson, Chairman of the Committee on Interstate and Foreign Commerce. He sought to obtain unanimous consent for its passage. However, Senator Donnell of Missouri took exception, and after a debate lasting about twenty minutes, Senator Johnson, feeling that unanimous consent would not be given, withdrew the Bill. It retains its place on the Calendar and may be brought up when the session reconvenes this month. Another Bill which passed the House was that which extended protection to the Bald Eagle in Alaska. The Bald Eagle is our national bird and is protected in continental United States, but when the Bill was passed a decade ago, protection to it in Alaska was specifically excluded. The Senate Committee considered the Bill, but because of the opposition of Alaskans and the testimony of representatives of the Interior Department, it was not reported to the Senate.

HUNTING—OPEN SEASON AND BAG LIMITS

(Dates inclusive)

Quail, Rabbits, Grouse, Turkeys, Pheasants—
(Ring-necked, Mongolian or Chinese)

When open date for any species of game bird or game animal falls on Sunday, hunting will not be permitted until following day.

West of Blue Ridge and in the Counties of Culpeper, Fairfax, Fauquier, Loudoun, Madison, Prince William, Rappahannock and on National Forest Lands ----------November 20-January 5.

East of Blue Ridge----------November 20-January 20.

Exceptions:

Quail—Closing date in Counties of Bland, Buchanan, Carroll, Craig, Dickenson, Floyd, Giles, Grayson, Lee, Montgomery, Pulaski, Scott, Smyth, Tazewell, Washington, Wise and Wythe ---------- ----December 20.

Closing date in Russell County----------December 5.

Turkeys—Closing date in Alleghany, Augusta, Bath, Botetourt, Fauquier, Frederick, Highland, Page, Rockbridge, Rockingham, Shenandoah, Warren and that section of Amherst and Nelson Counties lying west of the Blue Ridge December 15.

Closing date in Orange County----------December 31.

Unlawful to hunt turkeys in Bland, Buchanan, Carroll, Clarke, Craig, Dickenson, Floyd, Franklin, Giles, Gloucester, Grayson, Green, Henry, Lancaster, Lee, Madison, Mathews, Montgomery, Middlesex, Northumberland, Patrick, Pulaski, Rappahannock, Richmond, Roanoke, Russell, Scott, Tazewell, Smyth, Washington, Westmoreland, Wise and Wythe counties.

Pheasants—Unlawful to hunt in Madison county and in the Magisterial districts of Falmouth, Hartwood and Rockhill in Stafford County.

BAG LIMITS:

Quail, 8 a day, 125 a season; Rabbits, 6 a day, 75 a season; Grouse, 3 a day, 15 a season; Turkey, 2 a day, 4 a season; Pheasant, 4 a day, 20 a season.

Exceptions: Turkey—bag limits in Alleghany, Augusta, Bath, Botetourt, Charles City, Fauquier, Frederick, Highland, James City, New Kent, Page, Rockbridge, Rockingham, Shenandoah, and that section of Amherst and Nelson counties lying west of the Blue Ridge mountains, 1 a day, 1 a season; Orange, 1 a day, 2 a season.

DEER

May take with antlers at least 2 inches above the hair in counties east of the Blue Ridge and with at least 2 prongs on one antler in counties west of the Blue Ridge.

Unlawful to hunt with dogs in Nelson County lying west of the Southern Railway tracks.

When deer are found doing substantial damage to crops or orchards, game warden may issue to owner permit to kill such deer when in act of doing damage. Carcass of deer so killed must be turned over to game warden for delivery to charitable institution or hospital.

OPEN SEASON:

Statewide ---------- ----------November 20-January 5.

Exceptions:

Princess Anne, Norfolk and in that portion of Nansemond county lying east of a line as follows: beginning at a point on State highway number ten where it intersects the Isle of Wight county line, thence along such highway to its intersection with the corporate limits of the city of Suffolk; thence easterly, southerly and westerly with such corporate limits to their intersection with State highway number thirty-two; thence along such highway to its intersection with State highway number thirty-seven; thence along State highway number thirty-seven to the North Carolina line October 1-November 30.

Isle of Wight and in that portion of Nansemond county to the west of the line established in the foregoing paragraph November 10-January 5.

Closing date in the counties of Alleghany; Augusta; Bland (except that part north of Wolf Creek and east of highway #21 and #52); Botetourt; Craig; Frederick; Grayson; Giles (except that portion west of New River); Highland; Lee; Nelson west of Southern Rwy. tracks only; Page; Roanoke (except Haven's Refuge and that portion south of U. S. hwy. #11); Rockbridge; Rockingham; Scott; Shenandoah; Smyth; Tazewell (except that portion north of Clinch Mountain); Warren; Washington; Wise and Wythe. November 22.

Bath county ---------- ----------November 23.

Campbell county ----------November 29.

Unlawful to hunt deer in the following counties:

Amherst, except east of Southern Rwy. tracks; Arlington; Bedford; Bland in that portion north of Wolf Creek and east of highway #21 and #52; Buchanan; Carroll; Clarke; Culpeper; Dickenson; Elizabeth City; Fairfax; Fauquier; Floyd; Franklin; Giles in that portion west of New River; Greene; Henry; Loudoun; Madison; Montgomery; Northampton; Orange; Patrick; Prince William; Pulaski; Rappahannock; Roanoke in Haven's Refuge and that portion south of highway #11; Russell; Tazewell in that portion north of Clinch Mountain; and Stafford.

Continuous closed season on doe deer unless specifically provided for.

Bag Limit: One deer a season, except as follows: Amelia, Charles City, Chesterfield, Dinwiddie, Greensville, Isle of Wight, James City, Nansemond, New Kent, Norfolk, Princess Anne, Prince George, Southampton, Surry, Sussex and York, 1 a day, 2 a season.

Halifax, 1 a day, 2 a season, one of which may be a doe.

BEAR

OPEN SEASON:

To Hunt, Statewide----------November 20-January 5.

Exceptions—

Bland ----------October 15-January 5.

Princess Anne, Norfolk and that portion of Nansemond county lying east of a line as follows: beginning at a point on State highway number ten where it intersects the Isle of Wight county line, thence along such highway to its intersection with the corporate limits of the city of Suffolk; thence easterly, southerly and westerly with such corporate limits to their intersection with State highway number thirty-two; thence along such highway to its intersection with State highway number thirty-seven; thence along State highway number thirty-seven to the North Carolina line October 1-November 30.

Isle of Wight and in that portion of Nansemond county to the west of the line established in the foregoing paragraph November 10-January 5.

To Trap, Statewide----------November 15-December 31.

BAG LIMIT:

One bear a season (trap and/or hunt).

FOX

OPEN SEASON:

Hunt with dogs,

Statewide ----------September 1-August 31

Exceptions:

(a) Fairfax, Fauquier, Loudoun, Rappahannock ----------September 1-March 31

(b) No hunting with dogs only at any time in National Forests.

Hunt with gun----------October 1-November 18 November 20-January 20

Exceptions:

(a) No hunting in National Forests with gun during first open season, that is, from----------October 1-November 18

(b) Season will close on all National Forest lands and in all Counties west of Blue Ridge----------January 5

(c) except in Tazewell where season will close---------January 20

(d) and in Chesterfield, Franklin, Grayson, Patrick, Pittsylvania, and Amelia (Giles District only), season will close-----January 31

(e) Owner or tenant may kill or have killed foxes at any time on his own land or land under his control.

(f) Frederick, hunt with gun and/or dog, regardless of snow November 1-February 28

(g) Lunenburg ----------October 1-January 31

(h) Rockingham ----------October 1-March 31

(i) Scott (except reds), Washington and Wythe October 1-February 28

(j) Buchanan and Rockbridge, continuous open season.

(k) Unlawful to shoot foxes in Albemarle, Amelia (except Giles District), Amherst (except in National forest area), Appomattox, Campbell, Charlotte, Clarke, Culpeper, Dinwiddie (Darville District only), Fauquier, Halifax (except on regularly organized game preserves), James City, King George, Loudoun, Louisa, Nottoway, Prince Edward and Rappahannock.

(l) Unlawful to trap, hunt or kill red foxes in Scott.

Trap:

Unlawful to trap foxes with steel traps except when done on land by owner, members of his or her household, tenants, or those having permission to do so from the landowner or his or her agent.

Open Season: Statewide ----------November 15-January 31

Exceptions:

Albemarle ----------November 1-November 30

Buchanan ----------Continuous open season

Nelson ----------November 1-January 20

Trapping foxes in Clarke, Fauquier, Loudoun and Rappahannock prohibited.

MINK, OPOSSUM AND RACCOON

OPEN SEASON:

Statewide to hunt----------October 15-January 31.

Exception—

National Forest areas----------November 20-January 5.

Grayson County, season for hunting raccoons November 20-January 31.

Buchanan, continuous open season on mink.

) HUNTING LAWS

51

Statewide to trap mink ..... December 15-January 31.
Exception—Buchanan county continuous open season.
Statewide to trap opossum ..... December 1-January 31.
Raccoons: Unlawful to trap.
Bag Limits:
Opossum and mink; none.
Raccoon, 3 a day, 20 a season, except Ntl. Forest areas, 2 a day, 12 a season.

SQUIRRELS

PEN SEASON:

East of Blue Ridge ..... November 20-January 20.
Exceptions—
Accomac, Amherst, Bedford, Henry, Nelson, Northampton, and Pittsylvania counties ..... Sept. 15-30; Nov. 20-Jan. 20.
Franklin and Patrick ..... September 1-January 20.
Closing date in Culpeper; Fauquier; Fairfax; Loudoun; Madison; Prince William; Rappahannock; and, that section of Amherst and Nelson counties lying west of the Blue Ridge ..... January 5.
West of Blue Ridge and National Forest Areas ..... Nov. 20-Jan. 5.
Exception—
Carroll, Floyd and Scott ..... September 1-January 20.
Bland, Buchanan, Botetourt, Dickenson, Giles, Grayson, Lee, Montgomery, Pulaski, Roanoke, Russell, Smyth, Tazewell, Washington, Wise, Wythe ..... Sept. 15-30; Nov. 20-Jan. 5.
No hunting on Ntl. Forest areas until November 20.
Bag Limit—Six a day, 75 a season.
Trapping squirrels is prohibited.

BEAVER

PEN SEASON:

To Hunt ..... none
To Trap ..... none

MUSKRAT AND OTTER

PEN SEASON:

To Hunt ..... none
To Trap ..... December 15-February 28.
Exception—Muskrats ..... January 1-March 15.

RABBITS

PEN SEASON:

—To Trap ..... November 15-January 31.
Possession limit: 10 a day, 150 a season.

ELK

PEN SEASON: ..... none

NATIONAL FORESTS

Unlawful to hunt with either gun or dog or have in possession of firems in these areas prohibited by Federal Regulation.

STATE FORESTS

Should there be an open season on any species of game bird or game nimal, announcement will be made on or before November 1, 1950.

NATIONAL PARKS

National Parks are wildlife sanctuaries; hunting and possession of firems in these areas prohibited by Federal Regulation.

STEEL TRAPS

Unlawful to trap with steel traps except when done on land by its vner, members of his household, tenants, or those having permission to so from landowner or his or her agent.
Unlawful to set steel bear traps in Nansemond, Norfolk and Princess nne Counties.

OTE:

Should an emergency arise with reference to any species of game bird or game animal during the open season provided herein, the Commission reserves authority to curtail or close entirely the season on such species.

SPECIAL REGULATIONS

Big game Tag must be immediately attached to deer and bear killed-atewide.
Non-migratory game birds and game animals may be hunted from half hour before sunrise to half hour after sunset.
Game birds and game animals may be hunted with a shotgun, which all not be larger than 10-gauge or capable of holding more than three ells at one loading (2 shells only in the magazine and one shell in the rrel); or with bow and arrow; or with rifle.
Unlawful (Statewide) to hunt or kill deer with a rifle of a calibre less an twenty-five; provided that in the Counties of Charles City, Chesterld, Hanover, Isle of Wight, New Kent, Prince George, Southampton, rry, Sussex, Nansemond and Norfolk (except that part of the Dismal vamp in Nansemond and Norfolk Counties located as much as 100 yards om any railroad or public highway, and then only when the rifle is used on a stand elevated not less than 15 feet above the ground), it shall be unlawful to use a rifle of any calibre for hunting and/or killing deer.
Unlawful to hunt deer with rifle or shotgun loaded with slugs in King William County.
Unlawful in Caroline County to hunt or shoot any wild bird or wild animal with a rifle larger than twenty-two calibre using in such rifle any ammunition larger than a twenty-two short, twenty-two long, or twenty-two long rifle cartridges.
Unlawful to hunt or kill any wild bird or wild animal, including any predatory or undesirable species, with firearms or other weapon on Sunday.
Unlawful to hunt deer with dogs west of the Blue Ridge.
Unlawful to hunt or attempt to kill any species of game after having obtained the day's bag limit or the season's limit during any one day or any one season.
Unlawful to occupy any baited blind or other baited place for the purpose of taking or attempting to take any wild bird or wild animal or to put out bait or salt for any wild bird or wild animal for the purpose of taking or killing.
Unlawful to kill or capture any wild bird or wild animal adjacent to any area where a field or forest fire is in progress.
Unlawful to shoot any game bird or game animal from an automobile or other vehicle.
Unlawful to hunt or track woodcock or non-migratory game birds or game animals on snow (except that deer may be hunted Statewide in the snow and bear in counties west of Blue Ridge), either on or off one's own land; provided that land-owners may kill rabbits in the snow on their lands for their own personal use, and foxes may be hunted with dogs, but not with guns, in the snow.
Unlawful to hunt, take, capture, possess, transport, ship or sell game birds or game animals, or to attempt to do any of these things except as specifically provided by law or by regulation of the Commission.
Unlawful to destroy or molest in any way the nests, eggs, dens, or young of any game or furbearing animal or any bird, except under a scientific permit; provided that this shall not apply to any animal or bird defined by law or regulation to be predatory or undesirable species.
Unlawful to hunt with either a dog or a gun or be in possession of any firearm (except peace officers and game wardens) in the National Forest during the general closed hunting season.
Unlawful to have gun or rifle with dog in the daytime in the fields, woods or waters of Augusta, Clarke, Frederick, Page, Shenandoah and Warren and in Counties east of the Blue Ridge, except in Patrick, during the general closed season, except where migratory game birds, other than doves, and deer, bear and fox may be hunted during other periods; and except as to rabbits and squirrels by landowners upon their own lands.
Unlawful to have in possession loaded firearms on any public highway in Charles City and New Kent counties unless such person is authorized to hunt on private property on both sides of such highway.
Unlawful to shoot a rifle or revolver on or over the public inland waters or to carry a loaded rifle or revolver on a boat or other floating device on said public inland waters, except when such rifle or revolver is being transported from one point to another unloaded.
Unlawful to hunt furbearing animals in any County in the daytime with firearms, except during the general open season for hunting game birds and game animals in the County.
Unlawful to smoke out raccoons from dens or to cut den trees in Grayson County.
Unlawful to have in possession any shotgun or rifle on the water areas, including shores of the sea, in Accomac, Northampton and Princess Anne Counties during the closed season on migratory game birds, except by a permit issued by the Commission or by law enforcement officers.
Unlawful to shoot or have in possession any firearm from any boat or other floating device on the Appomattox River between the mouth of Namozine Creek and Genito bridge.
Unlawful to chase foxes with dogs in Appomattox County on Sunday.
Unlawful to hunt in Arlington County.
Unlawful to use dogs for hunting bear, foxes and bobcats during open season for hunting deer in Alleghany, Augusta, Bath, Botetourt, Clarke, Frederick, Highland, Page, Rockbridge, Rockingham, Shenandoah and Warren Counties.
Unlawful to hunt from power boat.
Unlawful to shoot any wild bird or wild animal in Charles City with a rifle larger than a .22 calibre.

LICENSES

County resident, to hunt and fish	$ 1.00
State resident, to hunt	3.50
State resident, to fish	3.00
State resident Big Game Stamp, to hunt deer and bear	1.00
National Forest Stamp, to hunt, trap and fish	1.00
Nonresident, to hunt	15.75
Nonresident, to fish	10.00
Nonresident Big Game Stamp, to hunt deer and bear	2.50
Special Stamp, to hunt deer and bear in Bath, Bland, Buchanan, Craig, Giles, Grayson, Highland, Rockbridge, Washington and Wise	1.00
Special license, to hunt deer and bear in Botetourt	.50
County resident, to trap	3.00
State resident, to trap	20.00
Nonresident, to trap	50.00

WILDFOWL

Migratory Wildfowl Regulations copies available upon request.
A brief of the Migratory Waterfowl Regulations applicable to Virginia 1950-1951 appears in the October, 1950 issue of *Virginia Wildlife*.

A Tenth of An ACRE

By DAVID B. GREENBERG*

From Biblical time to the present, conservation has been a one way street. Now there's hope for a brighter future

Photo by J. J. Shomon

Sowing wildlife foods in some little used corner will repay itself tenfold.

THE LACK OF GAME is the theme song of articles appearing in almost every outdoor magazine in the country. This condition will inevitably worsen if we depend entirely on replenishment from state game farms. As industrialization progresses the natural habitats of wild-game give way to settlements. Against these encroachments the releases of artificially-raised game birds are pathetically ineffective. Although some mature, most released birds fail to adapt themselves to life in the wild, and thousands die of starvation in winter, especially when snow blankets the ground.

The alternative, then, is to restore at least partially the environment which is conducive to the survival and reproduction of game birds when they are released by state farms. Setting aside large preserves such as the Muskingum Conservancy in Ohio, requires long legislative battles. It is impractical except as a long term program. Privately endowed sanctuaries are dependent upon the whims of a few rich men. The only effective way of providing living space for our game birds *now* is for Mr. John Q. Citizen to act on his own—and this must be done on a nation-wide basis. Naturally, city dwellers are excluded from this discussion, but anyone owning an acre or more in the country can do his bit.

It's very simple. Just plant a tenth of an acre in wheat or any other small grain, and instead of harvesting it, leave it for wildlife. The small grains offer cover almost throughout their entire growing season. Corn, cut and stacked, without being husked, will help carry game birds over the winter. The planting of a multiflora rose fence in suitable areas will provide not only cover the year round but millions of berries for winter feeding.

Skeptics may scoff at so simple a plan. But fortunately there exists today a striking illustration of the relationship between cover and wildlife. It is to be found in present day Israel.

Our childhood Bible studies painted a picture of Palestine as "a land of milk and honey," where a man could "sit peacefully under his own vine and fig tree." But visitors to the Holy Land up to 30 years ago came back with a different impression. They saw a country that was a cross between Death Valley and the sagebrush lands of the Southwest. Dune-covered irrigation canals and ancient aqueducts, blistering sun-baked hills, malarial swamps, starved camels and asses, and an under-nourished population, made them wonder why it was ever called "The Promised Land."

Overgrazing, ruthless exploitation of forests, and the consequent exposure of the soil to every form of erosion had turned the land into a near-desert. Gone were the trees mentioned in the Bible, oaks, terebinths, carobs, pines, cypresses, and sycamores. Over the years, goats not only ate the young shoots of trees, thereby impeding their natural growth, but also destroyed the last remnants of shrubs and grasses. Under the Turkish regime the indigenous

*Author of "Raising Game Birds In Captivity". D. Van Nostrand & Co., New York, N. Y.

Arabs were taxed for each tree on their property, which militated against replanting.

Jewish pioneers in small numbers came to Palestine in the 1880's, but immigration on a large scale only began between the two world wars, and has almost doubled since the last one. From the very beginning, the Jews began draining the swamps, planting forests, and irrigating farm crops. Purebred livestock was introduced and crossed with native stock to produce breeds that could withstand the tropical heat. The manure was used to increase the fertility of the long neglected soil.

The deserts began to bloom again. With the return of vegetation came insects, and after the insects, birds, which had almost disappeared from Palestine, came back to find food and cover. Wild ducks in large numbers have altered their flyways so that the land of Israel is a flyway once more.

The rehabilitation of Israel has only just begun. Much has been accomplished. More remains to be done. Not only the will of the people, but the government has made it a national policy to plant millions of trees each year. On Arbor Day schools are dismissed and children plant trees. And each year more birds appear.

Game technician H. C. Tuttle shows the heavy yield of seed on some Commission supplied Combine milo.

And now to get back to our own country.

From pre-Revolutionary days up to recent years we have many descriptions by pioneers and visitors to this country of the abundance of wildfowl. While it may be impossible to bring back the plentitude of game that was found in our primeval forests and unbroken prairies, we still have the possibility of increasing our bird population considerably. And by establishing a reasonable game bag we can keep the numbers fairly constant.

Bird lovers throughout the country have been able to attract songbirds to their homes by supplying bird boxes and food. We can emulate them and plant our tenth of an acre for game birds. Those who own marsh property can plant wild rice and other crops for migratory waterfowl.

Farmers have a special interest in increasing the numbers of game birds, for, with the decrease of wildfowl, the number of insect pests has greatly increased. Homer Croy, returning to his father's farm after many years, reported, "The land doesn't yield as it did then. Fertilizer is going on it—something my father never dreamed of. And there are a million bugs and insects busy at the corn and at the land, pests he never heard of. The vast fertility of the prairie soil has been depleted." (From "Country Cured", Harper & Brothers).

The elm tree beetle, the scourge of our magnificent elms, might have been halted in the beginning of his depredations by numerous coveys of pheasants or grouse. And that new pest, the Japanese beetle, might very well furnish a dainty morsel to any of the game birds. Quail, living in the hedgerows, are known to keep down the numbers of cinch bugs in a corn field. If these facts are impressed on farmers their contribution of a tenth of an acre will be made more palatable.

During the last war, England, facing the possibility of starvation, as enemy submarines drove shipping from the seas, enacted a land use policy. Farmers were told what to plant, and how much—or else! The government commandeered the land and individualism gave way to the common weal. Dr. H. H. Bennett has suggested that the time may not be far off when a man who wants to till the soil in our country will have to get a license just as doctors, lawyers, engineers, and architects do now.

Before we Americans are driven to giving up our precious individualism, let us voluntarily engage in the best conservation practices. "The best government is the least government," said Jefferson. A Mormon voluntarily gives up one tenth of his entire income to his church. Is there any reason why a farmer shouldn't be willing to give one tenth of an acre to conservation?

A terrific yelp came out of the bone and a huge bass jumped in the creek. "Turkey!" I shouted.

TURKEY CALL

By KENNEDY LUDLAM

YOUR OLD-TIME WOODSMAN would as soon go into the forest without his pants as he would without his turkey bone. I found this out quite by accident one day when Warden Rose and I were trying to coax a bass out of Goose Creek. A morning of industrious casting with plug and fly had left us with empty creels, and a feeling, too, of something lacking in the tummy. Lunch and a siesta were in order, and presently, after washing down the last sandwich with a huge gulp of cold tea from the thermos, Rose reached into the breast pocket of his shirt and pulled out a little bone about four inches long.

"Ever see one of those things?" he asked, holding it out for inspection.

I turned it over in my hand curiously. I certainly had never seen anything like it before. It was a hollow bone of some sort, evidently from a large bird, but from what kind of bird or what part of its anatomy, I couldn't guess.

Rose chuckled. "You won't see many of those things around today," he observed. "That's a turkey call, and time was when you met a feller in the woods who didn't have his turkey bone in his pocket, you watched him pretty close, 'cause he wasn't a real forest man. He'd likely be up to something."

He put the smaller end of the bone between his lips in one corner of his mouth, cupped his hands around the other end like a harmonica player, and sucked sharply. A weird yelp came out of the bone—something like the noise a youngster makes when he blows on a blade of grass held between his thumbs. "Lost my lip," Rose grumbled. "You got to get your mouth trained for calling just like a horn-player in the band. I haven't done this in so long, my lip's not working." He yelped some more with the bone, and I searched my memory for what I had read about turkey calls. Dimly I recalled something about Morgan's Virginia Riflemen in the Revolution confounding the British with a "senseless gobbling cry" and "weird strident gobblings of the wild turkey." This noise Rose was making certainly wasn't anything like a gobble. More yelps were coming now, in different pitches of tone as Rose bent his head to the ground and sucked on the bone. "Now she's coming," he mumbled, and a series of low clucks seemed to come out of the woods all around us, but it was only Rose and the bone. A bass flapped on the water below us, but neither of us paid any attention. A whole gamut of yelps and clucks was coming out of that call now.

"You got to talk to 'em," said Rose, looking dreamily out into the woods. "They got words just like humans, and you got to learn 'em. A couple of fellers go out in the woods together and get separated. One of 'em gets nervous and starts hollerin' to the other one. Maybe the second one don't hear him right off, and he gets nervous and calls some more—louder and maybe some frightened-like .This time the other feller calls back. Right away number one calms down, and don't call so loud. It's just the same with turkeys. You got to learn the language."

I took the bone in my hand again. "What is it?" I asked. "What's it from?"

"That's the small bone of a turkey wing, son." Rose took out his pipe and loaded it up. "I'm fixing to teach you how to make one of 'em, and maybe when you get to know how to use it, we'll go out in the woods this fall and get ourselves a big old gobbler for dinner. But you got to start right. Now take this bone here. It's not from a big turkey—just a medium sized feller. See, it's about four inches long, and it's the small bone of the wing—not the big solid one; the big one's no good, but the little one, maybe a third of an inch thick in the middle—that's the feller. I got this one last month and it's cured right good now. Now this here one," he went on, pulling another bone from his pocket, "I brought along for you to start on. She's not cured proper yet, but give it a couple more weeks, and she'll tune up right good. She's dry enough to work on though, so suppose you try it. Here's my knife—you got to have a good sharp knife so's not to splinter the edge of the bell. That's the big end, and old-timers like me claim the most important part of the whole bone is the bell. Of course, the mouthpiece—that's the little end—that's important, too, 'cause every man has his own pet corner of his mouth to call with, and that mouthpiece's got to be shaped so's he can do his best and be most comfortable."

(*Continued on page* 22)

How Many Birds Do We Have?

By REV. WILLIAM B. McILWAINE, JR., D.D.

Photo by Kesteloo

Careful note taking on bird life is the author's hobby.

"HOW MANY BIRDS DO WE HAVE?" This question is asked over and over again. Sometimes it is asked in mild interest, sometimes, seemingly, just to make conversation. I propose to give a definite answer—to the amusement of some, to the amazement of others.

The question as we have stated it is ambiguous. Do we mean to raise the question of the total number of individual birds? Or do we ask the number of different kinds of birds? Then too, what territory do we wish to cover? Suppose we try to give an answer that is all-inclusive.

Some years ago I was interested to know the total mileage of the highways of the United States. I paid a visit to the proper Government office in Washington. On the wall before me hung a huge map of the United States. On that map, traced in red, were all the roads known to the Government. They crossed and re-crossed in a perfect meshwork, until the greater part of that map was red with roads. Right there were three million miles of rural highways. As I studied that great map with its millions of miles of roads, and thought of its billions of dollars of cost, and of the peoples that went its ways, my imagination was fired. I said to the gentleman in charge, "Possibly it is a foolish question, with no intelligent answer possible, but can you give even a wild guess as to the highway mileage of the world?" His answer came back promptly: "Oh yes, we know that. This information is gotten through our consular service. The total world highway mileage is approximately 9,700,000."

In very much the same way we arrive at the number of birds. Thousands of careful censuses have been taken all over our land. These have yielded an enormous amount of data. In 1947, when the ducks and geese were at a low ebb, the Government estimated their number at 54,000,000. Great Britain has made careful study of her bird population. The latest figure on the birds of that country is 120 million. One of our best American authorities, Roger Tory Peterson, in his recent book *Birds Over America* estimates the number of breeding land birds in the United States as between five and six billion. To this number must be added their young of the year, and in the fall come flocking millions of other birds from Canada. So, "on a yearly basis" he estimates the number of birds in America north of Mexico at from 12 to 20 billion. James Fisher, another high-ranking student, has estimated the number of birds in the world at about 100 billion.

But what does all that mean for us here in Virginia? For me here on my southside Virginia farm?

The British studies have revealed a bird population varying in density from .7 to 30 per acre. The average is approximately 2 birds per acre. For the United States the land bird population is above that, about 3 birds per acre. For Virginia the average per acre would be even higher. Climate, terrain, population, everything is favorable to bird life. So I can take my 150 acres and multiply by about 4 or 5. Then it is up to me to find out whether I am above or below the average.

Have we answered our question? In a way, yes. But I cannot but feel that the asker is referring more frequently to the number of kinds of birds. How many species of birds do we have?

And here again comes in the matter of territory. Ernst Mayr, world authority, claims for the world a total of approximately 8,600 species. Because of

larger or smaller variations from the type, scientists name sub-species. Different authorities fail to agree as to whether these small variations constitute different species, or only sub-species. And so some authorities give the number of world species as high as 13,000. The fourth edition of the A.O.U. *Check List of North American Birds (1931)* gave the total number of species and sub-species, north of Mexico, as 1,420. Many of the sub-species can be distinguished from the typical species only by trained students, and then sometimes only with the specimen in the hand. The number of full species for North America (north of Mexico) is placed at about 650, with possibly 100 additional casual visitors. In Peterson's splendid *Field Guide to the Birds* he treats of 440 species, 7 hybrids, 74 birds occurring accidentally, and 181 sub-species. And he says these are all the birds to be found east of the Rocky Mountains.

In *The Raven,* bulletin of the Virginia Society of Ornithology, issue of November-December, 1948, Dr. J. J. Murray of Lexington announced the addition of 10 species or sub-species to the check list of Virginia birds, giving the state a count of exactly 400. Of course many of these are sub-species. The current issue of *The Raven* is devoted entirely to part one of *Birds of the Cape Henry Region,* by John H. Grey, Jr. The author calls this "a preliminary paper," but he lists 291 forms of bird life. Of course many of these are shore birds, which would not be found normally inland. In *The Raven* for November-December, 1949, Dr. Grey and Charles E. Stevens, Jr., publish "A List of the Birds of Albemarle County," including 244 forms. In 1946 Montgomery County had a list of 249 species and sub-species.

For most people the slight differences that go to make a sub-species are entirely inconsequential. A

Field glasses are a necessity for serious bird study.

Photo by Kesteloo

Photo by Kesteloo

Good cover encourages nesting birds to stay.

song sparrow is a song sparrow, however dark or light his coloring, or wherever he may breed. So if the real ornithologist tells us there are in our county, say, 250 different kinds of birds, we can pare down that number considerably. If we can get a list of over 200, then we can say we have gotten about all. But I really wonder if, having gotten to be that good, we too will not begin to look for sub-species.

I live on a farm in Dinwiddie County, a few miles west of Petersburg. I know very little about sub-specific differences. My territory should have close to 200 species. My local list stands at about 165.

But another item must be considered. I have a job, a job that is time-consuming, a job in the city. So often the birds will be swarming, just waiting to be recorded, but I must be hurrying to town. The birds are there, but I cannot take time to see them. This makes my own personal records of less value. I cannot present the whole picture. For instance, it has taken me nine years to identify at my place the worm-eating warbler. I cannot but feel that this bird gets by without my seeing him. Then I cannot give a true record of the occurrence of the worm-eating warbler in Dinwiddie County. And this comes close to a bird-lover's heart.

Of course the number of birds to be seen varies with the seasons. In December and January most of the birds that with us are migrants, are far away south. We have, it is true, many winter residents from the north. Late February finds thousands of robins and blackbirds heading north in the van of a great throng that is most numerous here in early May. August is the silent month of the summer, when so many are in tattered clothes, hiding away out of sight. But already the tide has turned again, and late August finds migration well set toward the south. My own records reflect these seasonal

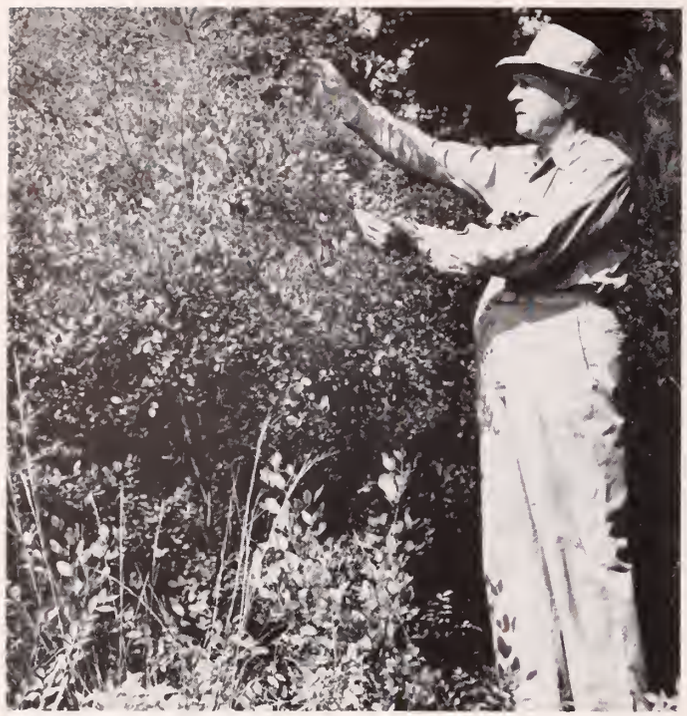


Photo by Kesteloo

Plenty of food and cover means plenty of birds.

changes, as I give the number of species I have identified each month. Through the month of August, the count is for this year (1950). Through September-December, I record for 1949. Results are as follows: January, 42; February, 43; March, 55; April, 89; May, 100; June, 67; July, 69; August, 71; September, 66; October, 63; November, 53; December, 45.

There you have it. Our question is answered. The average number of birds in the United States is about three to the acre. Virginia, with all things favorable, is certainly above the average. In almost any section of the state we can count on about two hundred species (exclusive of sub-species). But the number present depends on the season: birds are fewest in winter, most numerous in spring and fall, easiest to see and to identify in spring, most successful in hiding during molting after nesting, and just not to be seen at all when the wind is high. But if you are to find the birds you must go where the birds are.

How many birds are on your own personal list?

MARKSMANSHIP

(*Continued from page* 12)

a group of civilians if a location could be found and an organization formed. Also, now, the game wardens may be prevailed upon to help organize rifle clubs, or at least to instruct them if someone else organizes a group of men and women or boys and girls. Another thought is to have junior rifle instruction in high school as part of a general safety course which would include auto driving, first aid, fire prevention, and lifesaving.

Regardless of the type of club or organization, drop a line to the National Rifle Association, 1600 Rhode Island Ave. N. W., Washington, D. C., for information. Anyway, let's give the citizens a break who want to learn to shoot, especially the youngsters. They have been neglected. Let's make up for lost time. Let's shoot more, conserve game, and reduce firearm accidents by promoting logical education with firearms, and when you do go into the field, remember the ten commandments of hunting safety— you can't go wrong.

1. Treat every gun with the respect due a loaded gun. This is the cardinal rule of gun safety.
2. Carry only empty guns, taken down or with the action open, into your automobile, camp, and home.
3. Always be sure that the barrel and action are clear of obstructions.
4. Always carry your gun so that you can control the direction of the muzzle, even if you stumble.
5. Be sure of your target before you pull the trigger.
6. Never point a gun at anything you do not want to shoot.
7. Never leave your gun unattended unless you unload it first.
8. Never climb a tree or a fence with a loaded gun.
9. Never shoot at a flat, hard surface or the surface of water.
10. Do not mix gunpowder and alcohol.

TURKEY CALL

(*Continued from page* 19)

I looked at the bone more closely. "Why, this has been cooked!" I exclaimed.

"Sure it has," said Rose. "A cooked bone cures quicker and it's a lot easier to work, just so long as she's not so dry that she's too brittle to clean. Now, first of all, cut both ends off squarely just deep enough to open her up to full size."

I did as instructed, and found the bone was full of soft marrow. Rose produced a pipe cleaner and gently reamed out as much of the marrow as would come. "You can use any kind of fine wire just so long's it won't puncture the walls or chip either end," he remarked. "Now, there's all we can get out with this cleaner. Next thing you do is take a piece of soft string like this, tie a knot in the middle of it, and thread it down through the bone.

Now, work it gently through the bone back and forth so's the knot can clean out some more of that marrow. There, see?"

The knot passing through the hollow bone had scraped a lump of marrow from the walls. This went on for several minutes till the knot passed through without bringing out any more marrow.

Rose held up the bone to the sunlight. "See those dark spots in there? That's more stuff that's still got to come out, so we'll tie a couple more knots right close to the first one to make it bigger. Don't make it too big, though, or it'll break the bone when it gets to a narrow place."

More polishing and scraping for several minutes, and more fish started rising in the creek, but we had no heed for fish. Turkeys were in our minds, and the fish jumped in vain.

Presently there was no more marrow in the bone, and the inside was polished clean. The ends of the joints had been worn down fairly thin with the polishing string, but were somewhat more solid than when we cut them at first. Part of this hardening, Rose explained, was due to the heat from the string passing back and forth, and part was owing to the inside being exposed to the air.

"It's a little too soon really to work with that bell end," he said, "but we can try it anyhow. See this little pocket hone? Well, we'll just work the bone back and forth across this hone till the thicker parts of the bell are just as thin as the rest of the edges. Then we can stand the bone on end and smooth it off evenlike."

"What about the mouthpiece end?" I asked. "It looks awful small."

"Maybe so, but the smaller the mouthpiece, the better control you'll have. Some fellers like 'em big and some fellers like 'em smaller." He was working on the mouthpiece end now. "There. That's about right for me."

The top side was about a thirty-second of an inch shorter than the lower, and I put it in my mouth ready to call up all the turkeys in Virginia.

"Now there you go," grumbled Rose. "Fixin' to yelp that call before you even know what you're supposed to do with it. You got to close your lips on it till the soft parts of 'em almost come together inside your mouth. Then when you suck, those soft parts of your lip will vibrate. They'll tickle some, too, but you'll get used to it. You're not holding it right, either; see here: hold that bone straight up and down between the thumb and forefinger of your right hand, right down near the base of your thumb so's it sticks up about half an inch above the back of your hand. Now bring your hands together so that your left forefinger is clasped over the little finger of your right hand. That's right, now suck sudden and sharp."

A dismal squawk sounded from between my cupped palms, and the inside of my mouth felt as if someone had touched a vibrator to the tender parts of my lips. Rose was amused. "Told you it'd tickle some," he chuckled, "but you're doin' all right. Come the fall, if you practice right hard, might be you could scare a gobbler some. Work a little harder, and you might even call one up. 'Course the best thing to do is to let the gobbler do all the talking—you have to answer him once in a while, but only just enough to let him know where you are. And most hunters call too loud. Call just as soft as you can—it'll seem much too low to you, but you got to remember that that old turkey can hear a lot better than you, and besides he's probably been separated from his flock, and if he gets suspicious, he's going to quit callin' and you'll never see him. Funny thing," he went on, "it's only guesswork really about what sounds good to a turkey."

I felt a story coming on, and quit trying to yelp my bone. Rose settled himself more comfortably, and gazed up at the mountain.

"One time a few years back," he began, "I was followin' a turkey almost all day and couldn't get near him. It was gettin' kind of late in the afternoon, and I gave up. Pretty soon, as I was comin' through the woods, I met up with a couple of timber cutters filin' up their big old saw gettin' ready for the next day's work. You know about saws?" he broke off suddenly.

I shook my head.

"Saws get dull after you use them a while, and you got to sharpen up the teeth some by filing. It makes a funny kind of noise—sort of dead on account of the heavy gauge they use—and these fellers were sharpening up the tips of the drag teeth with a heavy old file. They filed a couple of drags, and then from way over on the top of a ridge about half a mile away, that old turkey answered. We let him call a couple of times and then filed another drag. Sure enough, there he came, sailing over the trees the whole distance."

"Did you get him?" I asked.

"Sure did."

I put the call to my lips and sucked hard. A terrific yelp came out of the bone, and a huge bass jumped in the creek. "TURKEY!" I shouted.

Rose looked at me disgustedly. "You call like that in the woods, and all you'll get *will* be bass.

C'mon, let's go fishing'."

Game Commission Exhibit Wins First Prize

First prize in the state exhibits class at the Atlantic Rural Exposition in Richmond was awarded to the Commission of Game and Inland Fisheries for their educational type exhibit depicting the setup and activities of the Commission.

Photo by Kesteloo

First prize in the state exhibits class at the 1950 Atlantic Rural Exposition went to this Game Commission Exhibit which featured the work of the various divisions of the Commission.

Governor Battle personally awarded the silver plaque to I. T. Quinn, Executive Director of the Commission, and complimented him on the prize-winning exhibit.

The exhibit was planned under the direction of the chief of the Education Division of the Commission and was largely constructed and carried out by L. G. Kesteloo, chief of the audio-visual section, assisted by Philip R. Collins, special services chief, and other members of the staff.

New Deer Study Completed on Jefferson National Forest

J. C. Sweet, Jr., graduate of the Virginia Cooperative Wildlife Research Unit at V. P. I., Blacksburg, has just completed his study of the deer and grouse management practices on portions of the Jefferson Forest. Sweet used three study areas—the Hurricane Closed Area, the Brushy Mountain Area near Marion, and the Gullion Fork Area in Smyth County. The title of Sweet's project was "An Evaluation of the Deer and Grouse Management Practices on the Jefferson National Forest, Virginia." Some of the conclusions that were reached in this study are given below, and quoted from his last report.

"Rhododendron is of definite value as winter cover for grouse. Its effectiveness depends on the size of the rhododendron beds, as well as their distribution throughout an area. Many small beds scattered throughout an area offer ideal shelter and also permit more grouse food plants to grow, and are therefore more effective than extensive large beds . . . " "If clearings are to be established in an area for the benefit of both deer and grouse, it is recommended that they be established in habitats where grouse are present, preferably adjacent to the escape and shelter cover . . . "

With reference to the success and failure of the deer restocking program, Mr. Sweet has this to say: "Of all the factors contributing to the success of the deer restocking program, it is believed that control of the 'self-hunting' dog has probably been most important, with effective game law enforcement ranking second."

Merrilees Returns to George Washington National Forest

William F. Merrilees, Administrative Assistant on the Jefferson National Forest since 1942, has been transferred to the George Washington National Forest to take over the administrative assistant position left vacant by the transfer of John C. Claman to Philadelphia. In making this announcement Mr. E. M. Karger, Forest Supervisor of the George Washington National Forest, welcomes back Mr. Merrilees who was stationed here in 1936 to 1942.

Prior to that time he was employed in the supervisor's office of the Monongahela National Forest in Elkins, West Virginia. Mr. Merrilees will live in Harrisonburg.

Alabama Has New Conservation Director

Phillip J. Hamm, longtime conservationist, was named on May 29 by Governor James E. Folsom to succeed Bert E. Thomas as director of the Alabama Department of Conservation. Mr. Thomas had resigned May 23 to accept appointment as Mobile

County tax assessor by Governor Folsom to fill the vacancy caused a few days earlier by the death of Harry M. Touart.

The new director of conservation held the post of Commissioner of the State Department of Revenue until he resigned early this year to become a candidate for governor. In that post he made an enviable record for the efficient manner in which that department functioned. Because of this, revenue collections were more thoroughly covered and upped somewhat. The tax load was also equalized through re-evaluation of properties.

Forest Fire Report Stresses Effectiveness of Organized Protection

Forest land under organized protection against fire reached an all-time high of 569,169,000 acres in the United States during 1949. In the same year the nation's forest fire losses were held to 15,395,740 acres, lowest in history.

These two facts, and their obvious relationship to each other, are stressed in a recent national forest fire report published by American Forest Products Industries of Washington, D. C., sponsor of the *Keep America Green* fire prevention education program.

"The outstanding 1949 record is a fitting and logical climax to a decade that witnessed unprecedented progress in forest protection and fire prevention," the industry sponsored organization states in a foreword to the report.

Today 30 states provide organized protection for all forestlands within their borders. Fifty-four per cent of last year's forest fires occurred on the 81,874,000 acres of unprotected land. They accounted for 83 per cent of the country's timber acreage loss.

The percentage of acreage loss from fire on unprotected land was 33 times greater than on timberland under organized protection. All figures used in the report are taken from official U. S. Forest Service statistics compiled for the calendar year 1949.

Cement Plant Threatens Great Waterfowl Refuge

If Secretary of the Interior Chapman should grant a permit to remove a large oyster shell deposit on the north central edge of the Sabine Lake Waterfowl Refuge in Louisiana, it would be but a matter of a few years when this magnificent wintering ground for a million or more ducks and geese would be written off as worthless, reports the National Wildlife Federation. The Secretary would have to go over the heads of the Fish and Wildlife Service which has made an adverse report on the threat.

Many of the Refuges, particularly in the South, have been purchased subject to oil and mineral rights. An oil company making explorations on the Refuge found no oil, but did discover this oyster shell deposit which covers about 2,500 acres along the shore of Calcasieu Lake. The deposit varies in depth from 50 to 70 feet and is from 10 to 20 feet under the surface of the ground. There are in the neighborhood of a hundred million cubic yards of shell in the deposit. During the past two years several attempts have been made to obtain leases for the removal of the shells in order to use them in the manufacture of cement. The Fish and Wildlife Service has not accepted any of these offers because of the dire effects on the Refuge which would certainly follow. To dig a hole from 70 to 90 feet deep and 2,500 acres in extent would not only ruin the wintering ground of the geese but play havoc with the muskrat population which produces from $50,000 to $100,000 in fur annually.

Alastair MacBain Succeeds Frank Dufresne

Alastair MacBain was recently installed as the new chief information officer of the Fish and Wildlife Service. He replaces Frank Dufresne who retired and moved to Olympia, Washington where he will be western representative for *Field and Stream*. MacBain is a well-known outdoor writer and an authority on conservation matters. He has made surveys and written articles on fish and wildlife for the *Saturday Evening Post* and other nationally known magazines.

Duck Stamps

Out of date duck stamps can be put to work for waterfowl again under a plan which has been operated for several years by Ducks Unlimited, Inc., famed organization of sportsmen-conservationists which restores waterfowl breeding grounds in the Canadian Duck Factory.

Duck hunters are asked to donate their old stamps for sale to philatelists. Proceeds are used for duck production projects on the Canadian breeding grounds.

Just leave the stamps attached to the state hunting licenses and mail to Ducks Unlimited, 342 Madison Ave., New York 17, N. Y.

Deer Chases Dog—That's News!

Fred Roop, wildlife manager on the Jefferson National Forest, is now in the market for 500 dog-chasing does. During the summer Fred went into Widener Valley, near Damascus, to answer a call from Mr. W. C. Cook. The first reports sounded as though a deer had been caught by dogs and was badly crippled. After investigation, Fred found that a large collie dog had chased a small fawn out of the woods with the mother doe close behind the dog. Finally the doe caught up with the dog. The doe was leaping into the air trying to pounce on the dog in an effort to protect its fawn. The doe was finally chased off before it killed the dog. This is quite a contrast to the common deer-dog stories.

for
Students
Teachers
Parents

BIRD OF THE MONTH

The Blue Jay

Summer is long gone but not the noisy, lively blue jay. He will be visiting your winter feeding stations from now until the coming of spring, and he won't be quiet about it. The blue jay announces his arrival with a loud 'jay-jay-jay', or may attempt to fool you by imitating the call of the other birds inhabiting the area. No winter resident is more active or noisy than the blue jay. He is all fuss and feathers mixed with lots of bluff and bluster.

Unfortunately for him, the blue jay does not enjoy the respect of all men. He has been observed to kill the young of other birds and to rob their nests. In spite of his reputation, the blue jay is not all bad. Almost half of his food is made up of nuts and berries, and like the squirrel, when nuts are plentiful, he buries many of them for future use.

In spite of his occasional raids on the young and nests of other birds, a blue jay is a devoted parent. Both birds construct the nest and take turns in incubating the eggs. During this period the adults are secretive and quiet. Three to six eggs, dull greenish with brownish spots, are laid in late April and May. The eggs hatch in about 16 days. The young birds are naked and helpless at birth but are not long in feathering out and are soon roaming through the woods in a noisy rollicking crew or are teasing some hawk or owl that has ventured near their domain.

He is a robber, a killer at times, noisy, and loves to torment his neighbors, but he is a beautiful bird and does much to brighten up the winter country-side. He is really not half as bad a fellow as he tries to have us believe.

CONSERVATION QUIZ COLUMN

Warden Bill has consented to write a short story concerning his work for every issue of *Viginia Wildlife*. In addition, he is inviting questions from you boys and girls. If you have any questions about wild birds or animals, send them to Warden Bill, *Virginia Wildlife*, Box 1642, Richmond, Va. Your questions with the answers and your name and address will appear in future issues of this magazine.

WARDEN BILL'S PATROL

You've no doubt heard that not so long ago beaver were scarce as hen's teeth in Virginia. If you read the paper, or *Virginia Wildlife*, you know that this is no longer true. In parts of the state we've plenty of them. Some folks think that we've too many! Now, I don't believe that. It's just that some of them are in the wrong place. Beaver don't live by any building code, they just naturally set up house-keeping wherever conditions are right for them. Sometimes they choose the wrong place, that is, the wrong place as far as we are concerned, and then something has to be done about it.

Just a short time ago it was all over the paper that the beaver were damming up a creek down in Chesterfield County and were flooding out a whole section of the highway. Folks that had to use that road to get to and from home didn't exactly approve of this action and I've heard that the Highway Department didn't want to establish a ferry in the middle of the county, so something had to be done.

Beaver can't read and you can't talk sense to them so some other wardens and myself went down there to see what we could do about it. We had to trap the beavers alive so that they could be moved to some other locality where they could build dams and flood land without causing all this trouble and damage.

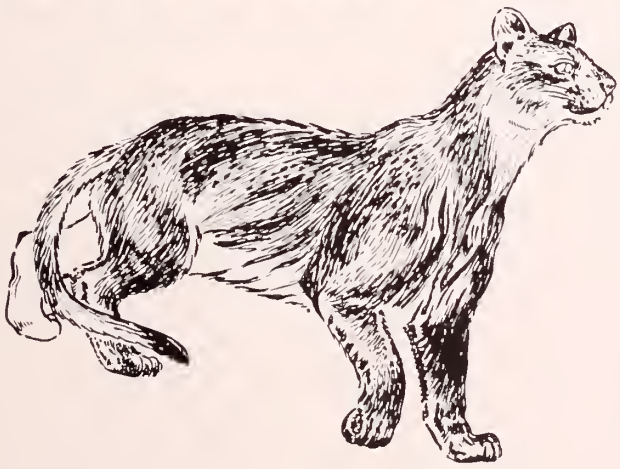
We caught a couple of them the first night without harming a hair on their backs. They were placed in a specially constructed shipping crate and sent off to the Prince William National Park up near Quantico for release. I went up to help with the job and see that they were let go in the kind of place the beaver might pick if he had any choice in the matter. I haven't any beaver blood in my veins but we found a spot that one of our game technicians said was just right. The creek where we finally let them go was clear and its banks were well covered with their favorite foods, willow, alder, and birch. There will be plenty for them to eat, lots of room for a dam, and no nearby farm lands or roads for them to flood. Next April or May there should be three or four little beavers on the creek, and the following year they will be able to move to a different location in the park and set up house-keeping on their own.

FADED FOOTPRINTS

A FISHER WAS OBSERVED BY AUDUBON NEAR NARROWS IN JULY, 1839. "BLACK FOXES" KILLED IN HIGHLAND COUNTY IN 1890 MAY HAVE BEEN FISHERS

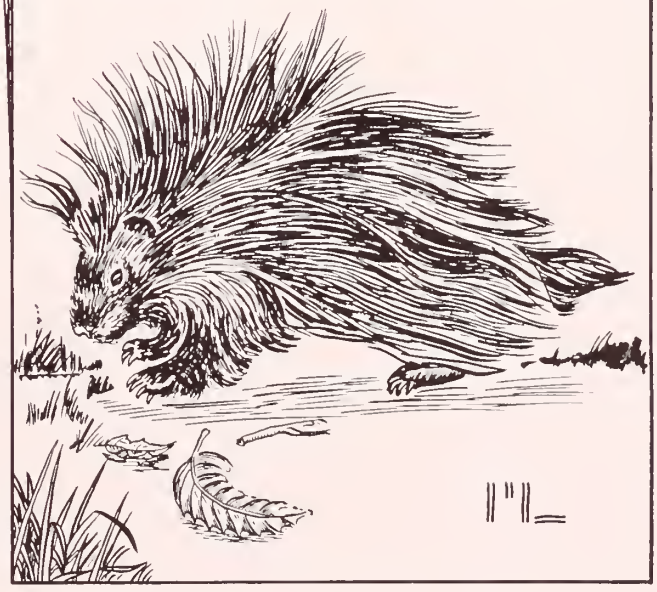
NO TIMBER WOLF HAS BEEN REPORTED SINCE ONE WAS KILLED IN TAZEWELL COUNTY IN 1910, ALTHOUGH THEY ONCE ABOUNDED IN VIRGINIA

BUFFALO STILL ABOUNDED IN THE CHARLOTTSVILLE AREA WHEN THOMAS JEFFERSON WAS BORN ~ LAST REPORTED KILL IN THE STATE WAS ON NEW RIVER DURING 1797

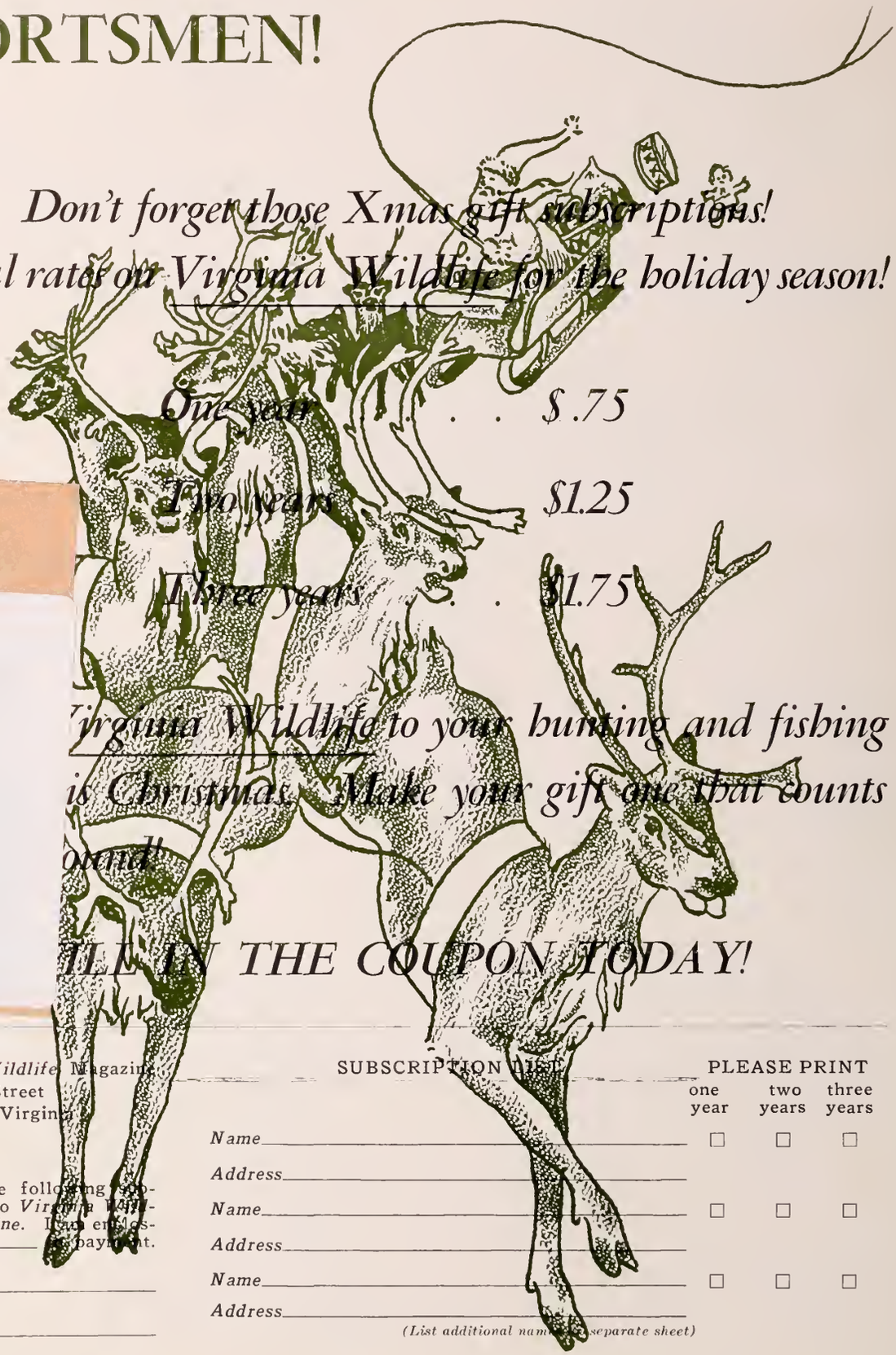


DURING 1882 'COON HUNTERS ON THE HOLSTON RIVER IN WASHINGTON COUNTY KILLED A COUGAR ~ THOUGHT TO BE THE LAST TAKEN IN VIRGINIA

PORCUPINES IN VIRGINIA VANISHED SOON AFTER JOHN CLAYTON OF GLOUCESTER COUNTY REPORTED TWO IN 1739



SPORTSMEN!



Don't forget those Xmas gift subscriptions!

Special rates on Virginia Wildlife for the holiday season!

One year . . . $.75

Two years . . . $1.25

Three years . . . $1.75

Virginia Wildlife to your hunting and fishing

is Christmas. Make your gift one that counts

ound!

ILL IN THE COUPON TODAY!

Virginia Wildlife Magazine
7 No. 2nd Street
Richmond, Virginia

Gentlemen:

Enter the following subscriptions to *Virginia Wildlife Magazine.* I am enclosing _____ in payment.

Signed_____

Address_____

SUBSCRIPTION LIST

PLEASE PRINT

	one year	two years	three years
*Name*_____ *Address*_____	☐	☐	☐
*Name*_____ *Address*_____	☐	☐	☐
*Name*_____ *Address*_____	☐	☐	☐

(List additional names on separate sheet)